

WHAT IS CLAIMED IS:

- 1 1. A method comprising:
 - 2 a) accepting a plurality of ads, each having at least one associated targeting
 - 3 concept;
 - 4 b) accepting at least one concept associated with a request; and
 - 5 c) determining, for each of the plurality of ads, a similarity with the request using,
 - 6 at least, the at least one targeting concept associated with the ad, and the at
 - 7 least one concept associated with the request.
- 1 2. The method of claim 1 wherein the plurality of ads are candidate ads that have been
- 2 determined to be relevant to the request using, at least, keyword targeting information.
- 1 3. The method of claim 2 further comprising:
 - 2 d) determining, for each of the plurality of ads, a score using at least the
 - 3 determined similarity.
- 1 4. The method of claim 3 wherein the act of determining a score further uses at least
- 2 one of (1) ad performance information, (2) advertiser quality information, (3) ad price
- 3 information, and (4) an information retrieval score.
- 1 5. The method of claim 4 further comprising:
 - 2 e) providing a relative preference attribute to each of the ads using at least the
 - 3 score.
- 1 6. The method of claim 5 wherein the relative preference attribute is a position at which
- 2 the ad is to be rendered.
- 1 7. The method of claim 3 further comprising:
 - 2 e) providing a relative preference attribute to each of the ads using at least the
 - 3 score.

1 8. The method of claim 7 wherein the relative preference attribute is a position at which
2 the ad is to be rendered.

1 9. A method comprising:

- 2 a) accepting a plurality of ads, each having at least one associated targeting
- 3 concept;
- 4 b) determining at least one concept associated with a request; and
- 5 c) determining, for each of the plurality of ads, a similarity with the request using,
- 6 at least, the at least one targeting concept associated with the ad and the at least
- 7 one determined concept associated with the request.

1 10. The method of claim 9 wherein the plurality of ads are candidate ads that have
2 been determined to be relevant to the request using, at least, keyword targeting
3 information.

1 11. The method of claim 10 further comprising:

- 2 d) determining, for each of the plurality of ads, a score using at least the
- 3 determined similarity.

1 12. The method of claim 11 wherein the act of determining a score further uses at least
2 one of (1) ad performance information, (2) advertiser quality information, (3) ad price
3 information, and (4) an information retrieval score.

1 13. The method of claim 12 further comprising:

- 2 e) providing a relative preference attribute to each of the ads using at least the
- 3 score.

1 14. The method of claim 11 further comprising:

- 2 e) providing a relative preference attribute to each of the ads using at least the
- 3 score.

15. The method of claim 9 wherein at least some of the plurality of ads are to be served in association with search results, and wherein the act of determining at least one concept associated with a request includes using at least information associated with a search query.

16. The method of claim 9 wherein at least some of the plurality of ads are to be served in association with a document including content, and wherein the act of determining at least one concept associated with a request includes using at least the content of the document.

17. A method comprising:
a) accepting an ad having an at least one associated targeting concept;
b) accepting at least one concept associated with a request; and
c) determining a similarity of the ad with the request using, at least, the at least one targeting concept associated with the ad, and the at least one concept associated with the request.

18. The method of claim 17 wherein each of the at least one the targeting concept is represented by a concept vector including elements with concept values, and wherein each of the at least one concept associated with the request is represented by another concept vector including elements with concept values.

19. The method of claim 18 wherein the act of determining a similarity includes determining a dot product of the concept vector and the other concept vector.

20. The method of claim 18 wherein the concept values of the elements of the concept vector may range from 1 to -1, and wherein the concept values of the elements of the other concept vector may range from 1 to -1.

21. The method of claim 18 wherein at least some of the elements of the concept vector are dependent,
wherein at least some of the elements of the other concept vector are dependent,
and
wherein the act of determining a similarity includes determining a minimum distance from one concept vector to the other concept vector across one or more connections.

22. The method of claim 18 further comprising:
- adjusting, before determining a similarity of the ad with the request, at least some of the concept values using tracked performance information of corresponding concepts when used in ad serving.

23. A method comprising:
a) accepting ad information;
b) determining at least one of (1) a candidate concept and (2) a candidate concept indicator using the accepted ad information;
c) presenting the determined at least one candidate concept and candidate concept indicator to an advertiser; and
d) determining a representation of the concept targeting information for the ad using, at least, advertiser feedback to the presented at least one candidate concept and candidate concept indicator.

24. The method of claim 23 further comprising:
e) determining at least one of (1) a further candidate concept and (2) a further candidate concept indicator using advertiser feedback; and
f) presenting the determined at least one further candidate concept and further candidate concept indicator to the advertiser.

25. The method of claim 23 wherein the candidate concept indicator is a previously processed search query to which the ad would have been relevant.

26. A method comprising:

- a) accepting targeting criteria information associated with an ad;
- b) determining at least one targeting concept using at least the accepted targeting criteria information;
- c) determining a representation of the determined at least one targeting concept;
- and
- d) associating the determined representation with the ad.

27. The method of claim 26 wherein the act of determining at least one targeting concept further uses at least information from other ads using the same or similar targeting criteria information.

28. A method for determining concepts of a request, the method comprising:

- a) accepting request information;
- b) determining at least one concept using the request information;
- c) generating a representation of the determined at least one concept, wherein a score of least one of the at least one concepts in the generated representation is adjusted using performance information of advertisements that have been served pursuant to the concept.

29. The method of claim 28 wherein the at least one concept includes a “no concept” concept.

30. The method of claim 28 wherein the performance information is advertisement selection information.

31. The method of claim 28 wherein the performance information is conversion information.

32. A method for adjusting a score of a concept relative to a request, the method comprising:

- Google-48 (GP-083-00-US)

- 3 a) tracking performance information of advertisements served pursuant to the
- 4 concept; and
- 5 b) adjusting the score of the concept relative to the request using the tracked
- 6 performance information.

1 33. The method of claim 32 wherein the act of adjusting the score includes increasing
2 the score if the tracked performance information is above a threshold performance level.

1 34. The method of claim 32 wherein the act of adjusting the score includes decreasing
2 the score if the tracked performance information is below a threshold performance level.

1 35. The method of claim 32 wherein the act of adjusting the score uses the tracked
2 performance of the concept relative to tracked performance of at least one other
3 concept.

1 36. The method of claim 32 wherein the performance information is advertisement
2 selection information.

1 37. The method of claim 32 wherein the performance information is conversion
2 information.

1 38. Apparatus comprising:

- 2 a) an input for accepting
- 3 i) a plurality of ads, each having at least one associated targeting
- 4 concept, and
- 5 ii) at least one concept associated with a request; and
- 6 b) means for determining, for each of the plurality of ads, a similarity with the
- 7 request using, at least, the at least one targeting concept associated with the ad,
- 8 and the at least one concept associated with the request.

1 39. The apparatus of claim 38 wherein the plurality of ads are candidate ads that have
2 been determined to be relevant to the request using, at least, keyword targeting
3 information.

1 40. The apparatus of claim 39 further comprising:

2 c) means for determining, for each of the plurality of ads, a score using at least
3 the determined similarity.

1 41. The apparatus of claim 40 wherein the means for determining a score further use at
2 least one of (1) ad performance information, (2) advertiser quality information, (3) ad
3 price information, and (4) an information retrieval score.

1 42. The apparatus of claim 41 further comprising:

2 d) means for providing a relative preference attribute to each of the ads using at
3 least the score.

1 43. The apparatus of claim 42 wherein the relative preference attribute is a position at
2 which the ad is to be rendered.

1 44. The apparatus of claim 40 further comprising:

2 d) means for providing a relative preference attribute to each of the ads using at
3 least the score.

1 45. The apparatus of claim 44 wherein the relative preference attribute is a position at
2 which the ad is to be rendered.

1 46. Apparatus comprising:

2 a) means for accepting a plurality of ads, each having at least one associated
3 targeting concept;

4 b) means for determining at least one concept associated with a request; and

5 c) means for determining, for each of the plurality of ads, a similarity with the
6 request using, at least, the at least one targeting concept associated with the ad
7 and the at least one determined concept associated with the request.

1 47. The apparatus of claim 46 wherein the plurality of ads are candidate ads that have
2 been determined to be relevant to the request using, at least, keyword targeting
3 information.

1 48. The apparatus of claim 47 further comprising:

2 d) means for determining, for each of the plurality of ads, a score using at least
3 the determined similarity.

1 49. The apparatus of claim 48 wherein the means for determining a score further use at
2 least one of (1) ad performance information, (2) advertiser quality information, (3) ad
3 price information, and (4) an information retrieval score.

1 50. The apparatus of claim 49 further comprising:

2 e) means for providing a relative preference attribute to each of the ads using at
3 least the score.

1 51. The apparatus of claim 48 further comprising:

2 e) means for providing a relative preference attribute to each of the ads using at
3 least the score.

1 52. The apparatus of claim 46 wherein at least some of the plurality of ads are to be
2 served in association with search results, and

3 wherein the means for determining at least one concept associated with a
4 request use at least information associated with a search query.

1 53. The apparatus of claim 46 wherein at least some of the plurality of ads are to be
2 served in association with a document including content, and

3 wherein the means for determining at least one concept associated with a
4 request use at least the content of the document.

1 54. Apparatus comprising:

2 a) an input for accepting

3 i) an ad having an at least one associated targeting concept, and

4 ii) at least one concept associated with a request; and

5 b) means for determining a similarity of the ad with the request using, at least,
6 the at least one targeting concept associated with the ad, and the at least one
7 concept associated with the request.

1 55. The apparatus of claim 54 wherein each of the at least one the targeting concept is
2 represented by a concept vector including elements with concept values, and
3 wherein each of the at least one concept associated with the request is
4 represented by another concept vector including elements with concept values.

1 56. The apparatus of claim 55 wherein the means for determining a similarity determine
2 a dot product of the concept vector and the other concept vector.

1 57. The apparatus of claim 55 wherein the concept values of the elements of the
2 concept vector may range from 1 to -1, and
3 wherein the concept values of the elements of the other concept vector may
4 range from 1 to -1.

1 58. The apparatus of claim 55 wherein at least some of the elements of the concept
2 vector are dependent,
3 wherein at least some of the elements of the other concept vector are dependent,
4 and
5 wherein the means for determining a similarity determine a minimum distance
6 from one concept vector to the other concept vector across one or more connections.

59. The apparatus of claim 55 further comprising:

- means for adjusting, before determining a similarity of the ad with the request, at least some of the concept values using tracked performance information of corresponding concepts when used in ad serving.

60. Apparatus comprising:

- a) an input for accepting ad information;
- b) means for determining at least one of (1) a candidate concept and (2) a candidate concept indicator using the accepted ad information;
- c) means for presenting the determined at least one candidate concept and candidate concept indicator to an advertiser; and
- d) means for determining a representation of the concept targeting information for the ad using, at least, advertiser feedback to the presented at least one candidate concept and candidate concept indicator.

61. The apparatus of claim 60 further comprising:

- e) means for determining at least one of (1) a further candidate concept and (2) a further candidate concept indicator using advertiser feedback; and
- f) means for presenting the determined at least one further candidate concept and further candidate concept indicator to the advertiser.

62. The apparatus of claim 60 wherein the candidate concept indicator is a previously processed search query to which the ad would have been relevant.

63. Apparatus comprising:

- a) an input for accepting targeting criteria information associated with an ad;
- b) means for determining at least one targeting concept using at least the accepted targeting criteria information;
- c) means for determining a representation of the determined at least one targeting concept; and
- d) means for associating the determined representation with the ad.

- 1 64. The apparatus of claim 63 wherein the means for determining at least one targeting
2 concept further use at least information from other ads using the same or similar
3 targeting criteria information.

1 65. Apparatus for determining concepts of a request, the apparatus comprising:
2 a) an input for accepting request information;
3 b) means for determining at least one concept using the request information;
4 c) means for generating a representation of the determined at least one concept,
5 wherein a score of least one of the at least one concepts in the generated
6 representation is adjusted using performance information of advertisements that
7 have been served pursuant to the concept.

1 66. The apparatus of claim 65 wherein the at least one concept includes a "no concept"
2 concept.

1 67. The apparatus of claim 65 wherein the performance information is advertisement
2 selection information.

1 68. The apparatus of claim 65 wherein the performance information is conversion
2 information.

1 69. Apparatus for adjusting a score of a concept relative to a request, the apparatus
2 comprising:
3 a) means for tracking performance information of advertisements served
4 pursuant to the; and
5 b) means for adjusting the score of the concept relative to the request using the
6 tracked performance information.

1 70. The apparatus of claim 69 wherein the means for adjusting the score include
2 means for increasing the score if the tracked performance information is above a
3 threshold performance level.

- Google-48 (GP-083-00-US)

- 1 71. The apparatus of claim 69 wherein the means for adjusting the score include
2 means for decreasing the score if the tracked performance information is below a
3 threshold performance level.

1 72. The apparatus of claim 69 wherein the means for adjusting the score uses the
2 tracked performance of the concept relative to tracked performance of at least one other
3 concept.

1 73. The apparatus of claim 69 wherein the performance information is advertisement
2 selection information.

1 74. The method of claim 69 wherein the performance information is conversion
2 information.